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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/534,475	05/10/2005	Raoul Florent	FR 020121	5009
24737 7590 12/10/2008 PHILIPS INTELLECTUAL PROPERTY & STANDARDS P.O. BOX 3001 BRIARCLIFF MANOR, NY 10510				
EXAMINER				
GUPTA, VANI				
ART UNIT		PAPER NUMBER		
3768				
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/534,475

Applicant(s)

FLORENT ET AL.

Examiner

VANI GUPTA

Art Unit

3768

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-4 is/are rejected.
- 7) ☒ Claim(s) 5-14 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 May 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SE/US)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date ____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: ____.

DETAILED ACTION

Specification

Claims 5- 14 are objected to because of the following informalities: improper multiple claim dependency. Appropriate correction is required. Please see below for details.

Claim Objections

Claims 5 – 14 are objected to under 37 CFR 1.75 (c) as being in improper forms because a multiple dependent claim should refer to other claims in the alternate only and/or cannot depend from any other multiple dependent claim. See MPEP § 608.01(n). Accordingly, the claims have not been further treated on the merits.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

1. Claims 1 and 2 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

These claims included subject matter not supported by the specification of the present application; particularly “skeleton [or] skeleton information” and “motion vectors.”

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(c) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

1. ***Claims 1 – 4 are rejected under 35 U.S.C. 102(e) as being anticipated by Zarkh et al. (US 2008/0247621 A1).***

Regarding Claim 1, Zarkh et al. (hereinafter *Zarkh*) discloses a medical viewing system (**fig. 1, 100**) comprising a processing means for processing live sequence of images in real time.

Zarkh's processing means capable of (1) automatically detecting the guide-wire tip, yielding skeleton information of the guide-wire tip and a field of motion vectors based on said skeleton information; and (2) automatically registering the guide-wire tip with respect to a reference based on the field of motion vectors and for enhancing the guide-wire and the vessel walls while blurring the background in the registered images (*paragraphs [0021], [0028], [0032]; and figure 4*).

The system also comprises a display means for displaying a live sequence of processed images (*display device, 120*).

In light of the 35 U.S.C. 112 second paragraph rejection, Examiner has interpreted skeleton and/or skeleton information to include any and all references to a guide-wire, or guide-wire tip. Zarkh discusses tracking and registering a device, including a guide-wire tip (*Abstract*).

Examiner has also taken motion vectors to mean any reference to the varying position and orientation of the guide-wire or guide-wire tip. Zarkh discusses accomplishing this objective (*paragraph [0033]*).

Furthermore, Examiner has interpreted “extending the skeleton” to mean directing the guide-wire or guide-wire tip through a region of interest.

With respect to Claim 2, Zarkh’s system is capable of matching the current skeleton to a skeleton of reference, means to estimate the matching motion and means to extrapolate this motion to a full region of interest (ROI) (*paragraphs [0032 – 0036]*).

With respect to Claim 3, Zarkh’s system is capable of computing means (**fig. 1, 110**) comprises selecting means for selecting a Region Of Interest in the sequence of images comprising the guide-wire tip, and processing the data in said ROI (*paragraph [0028], second half: “processor is preferably a computing platform...”*).

With respect to Claim 4, control means for a user to activate, to control the duration or to stop the processing means applied to the sequence of images in connection to a selected instant of the sequence, comprising starting means and stopping means for the user to activate or stop, at said selected instant, the processing means applied to the sequence of images for improving the visibility of the selected ROI (*paragraph [0032 – 0033]*).

Conclusion

1. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. *Shachar* (US 2008/0027313 A1) for system and method for catheter guidance control and imaging; *Webler* (US 2007/0055142 A1) for method and apparatus for guiding and

positioning of a device with a position tracking sensor and pre-recorded images; Kleen et al. 9US 2005/0165303 A1) for intravascular catheter, for insertion into a vessel or cavity-containing organ; and Van Der Laugt et al. (US 2005/0090733 A1) for method and apparatus for determining the position of surgical tool relative to target volume.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to VANI GUPTA whose telephone number is (571)270-5042. The examiner can normally be reached on Monday - Friday (8:30 am - 5:30 pm; EST).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Long Le can be reached on 571-272-2083. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/V. G./
Examiner, Art Unit 3768

/Long V Le/
Supervisory Patent Examiner, Art Unit 3768